
Some aspects of UK monetary policy

*In an open lecture delivered at the University of Kent at Canterbury⁽¹⁾ the **Governor** discusses the objectives and practical operation of monetary policy.*

The ultimate objectives are stability of the currency and, more fundamentally, the creation of a strong and growing economy. Intermediate objectives are couched in the form of targets for the monetary aggregates and set out in the Government's medium-term financial strategy. The relationship between these aggregates and nominal income is subject to considerable variation and uncertainty so targets need to be pursued pragmatically, with discretion, rather than through the adoption of automatic rules. Possible alternative targets are discussed and the practical difficulties that they would raise are described.

*In considering the implementation of policy, the **Governor** notes that the authorities' influence on interest rates through official operations in the money market has limits and that in the short term the demand for credit tends to be rather insensitive to changes in interest rates. He goes on to explain why overfunding of the public sector's borrowing requirement is a rational approach to offsetting the monetary effects of excess demand for credit and that it has occurred, on and off, throughout the post-war period.*

Before my recent appointment to my present position, I served as a commercial banker at the head of one of the main clearing banks. The experience of having worked in both capacities confirms the very different perspectives of the two roles. A commercial banker naturally views monetary developments from a quite different viewpoint than does a central banker. For example, deposit liabilities form the basis of a commercial banker's business. He is concerned that his business should prosper, and looks to maintain, or improve, his share of the various markets for deposits. The central banker is concerned instead with the aggregate total of such deposits, and in place of the pleasure that an expanding book generally brings to the commercial banker, the central banker worries about the overall effect on the economy, particularly on inflation, that an undue expansion of the monetary aggregates might cause.

I am, I believe, the first Governor to have been appointed from a clearing bank. That no such appointment had been made before may partly reflect the difficulty of turning a poacher into a gamekeeper. But having now taken up this new job, it was natural to enquire exactly what was the game that I have been engaged to preserve; to find out what it is that monetary policy is ultimately seeking to achieve.

Final objectives of monetary policy

My answer to this question is in two parts, or on two levels.

At the simpler level, the essential concern of monetary policy is with the stability of the currency as an end in

itself. In an inflation prone world this amounts to the containment and ultimate elimination of inflation, though one can envisage a situation in which falling prices could cause just as much difficulty as rising prices do now.

The objective of currency stability is traditionally the particular functional responsibility of central banks worldwide. There have been times, historically, when the Bank of England was responsible for implementing arrangements under the gold standard, and subsequently under a fixed exchange rate, which were directly threatened by price inflation. But even today when there is no official convertibility of this kind, a bank, issuing notes promising 'to pay the bearer on demand' a certain sum, is necessarily embarrassed if that promise is systematically devalued in real terms by inflation. And this concern with the respect commanded by our banknotes spreads out into a more generalised concern to ensure that the currency retains its function, not simply as a means of payment, but more importantly as a reliable standard and as a store of value. This is essential to a stable monetary and financial framework. And, unless we can achieve it, most of our major individual and collective economic decisions—for example, whether to spend or to save, to consume or to invest—and many of the crucial relationships within the economy, for example, between producers and consumers or between borrowers and lenders, will be arbitrary and distorted.

At a second, more profound, level monetary policy is concerned with the stability of the currency, not just as an end in itself but as a vital means to a much wider end—a strong and growing economy. This in turn is essential if

(1) On 26 October.

we are to have any chance of satisfying the aspirations—for higher levels of employment and higher standards of social care—that we would all like to see.

Until about a decade ago it was a common view that there was a fundamental conflict, or trade-off, between the objective of price stability and reduction of inflation on the one hand and the objective of growth and full employment on the other. And this may, indeed, be true in the short run. But since then there has been a wide consensus that, in anything but the short run, these objectives are not in conflict but rather they are complementary. The foundations of our present anti-inflationary monetary policy were, in fact, laid in 1976 under a Labour government. There are still of course different views on the methods by which inflation can best be controlled, but, I would suggest, a general recognition of the need for a stable monetary framework if enterprise and employment are to flourish.

Instability in the value of the currency, and thence in financial markets more generally, introduces additional and avoidable elements of uncertainty which interfere with the resource allocation role of markets and confuse market signals. In an unstable financial environment it becomes more difficult to identify changing relative prices, and real productive operations become more dependent on luck in the associated financial arrangements. One response to this is for both parties to prefer shorter-term financial arrangements which may make it more difficult to finance long-gestation projects. Alternatively, in many countries the capital market is increasingly replaced, under these pressures, by bureaucratic allocations of funds at regulated prices. There are, indeed, a whole series of arguments to show why price instability in general, and inflation in particular, is inimical to growth, even though I recognise that, as is often the case with economic propositions, one can never absolutely prove the point.

Intermediate objectives

So much, then, for the ultimate objectives of monetary policy. I have to admit that, with very few exceptions, central bankers and finance ministers in most countries have frequently expressed a similar commitment to the achievement of price stability. Yet few countries got through the 1970s without at least one spell of double digit inflation. Some countries, indeed, looked over the edge of the abyss of hyper-inflation.

However sincerely meant, good intentions with regard to counter-inflation, on the part of politicians and central bankers, have clearly not been enough. And it is not surprising, given the experience of the 1970s, that financial markets should, during that same period, have become deeply sceptical about the authorities' behaviour, judging them by their actions rather than by their words.

The inadequacy of good intentions, and the problems of living with sceptical financial markets, have both pointed to a need for the authorities to commit themselves to a

policy framework whose function is to provide some reassurance and guidance to the markets about future developments and to constrain the authorities themselves from taking the short-term soft options. This is the purpose of the medium-term financial strategy, or MTFS as it is now commonly called. The aim of the MTFS is to bring inflation down, at a rate which will depend upon the flexibility and adaptability of the economy, while providing room in the longer term for real growth at a sustainable rate which will also depend on such supply-side factors. The paths for prices and output are not independently specified, though illustrative figures are offered; the strategic plan relates to a path for the evolution of nominal incomes.

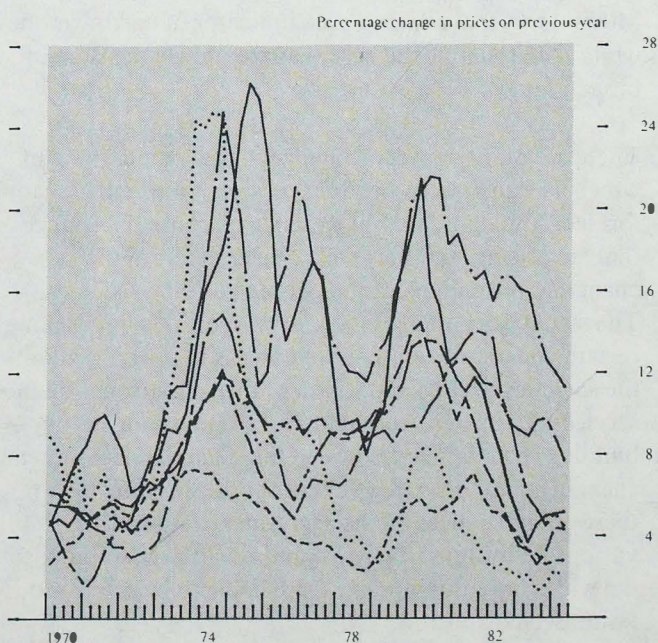
The case for precommitment to such a strategic policy framework for the progressive reduction of inflation does not settle the design of the intermediate, or more tactical, guidelines to be followed as part of that strategy. For operational purposes the intermediate, or tactical, objectives of the MTFS are stated in terms of targets for the growth of certain monetary aggregates. In the present context there are two key questions: where should the operation of a target system lie on a scale running from the strictly mechanical to the totally discretionary; and whether there is a case for considering alternative forms of intermediate target.

Rules or discretion?

Monetary targets were adopted in the belief that the relationship between the monetary aggregates and nominal incomes, the velocity of money, would be reasonably stable and predictable. The hopes of those who looked for a simple, close and reliable relationship, that would hold even in the short term, have not been fulfilled.

Inflation in the major countries

— — — Canada
 - - - - - France
 - - - - - Germany
 - - - - - Italy
 Japan
 — — — United States
 — — — United Kingdom



The relationships among the various aggregates, and between them and nominal incomes, have been subject to considerable variation and uncertainty from year to year. Such shifts in previously established statistical regularities have provided a challenge to economists to come up with new and better relationships. Battles have been fought over whether or not meaningful econometric relationships can be found. For myself I take all their offerings, their regressions, coefficients and simulations, with a liberal dose of salt. Of course these matters need to be investigated for such insights as can be found, but I am totally persuaded that it is mistaken to expect too much precision in such relationships, especially in the short term. As a practical matter the use of monetary targets does not depend upon such precision. They can be a useful guide to policy provided that the fundamental longer-run relationship between monetary growth and inflation remains robust and unexpected shifts in the shorter-term relationships remain within reasonable bounds.

One reason for these shifts in the structural relationships which the economists are trying to measure is that they are not static but are changing over time. Such changes within the monetary field have recently been large and often abrupt. Thus sterling M3 (£M3) was substantially distorted by the entry of the banks into the provision of mortgage finance earlier in 1981 and 1982, and we then placed more emphasis on PSL2, which includes the greater part of the building societies' liabilities. A further example is provided by the growing availability of interest-bearing sight deposits, which has led to a major change in the characteristics of the narrow money aggregate, M1. Although the direction of this effect was clear, its quantitative extent was, and remains, unpredictable. In the event, interest-bearing sight deposits, within M1, have grown no less than 38% over the last twelve months. Because we saw this problem coming, we ceased to treat M1 as a target aggregate. In place of M1, we now regard M0 as the best available single indicator of narrow money, while £M3 remains the best available single measure of broad money.

There are other structural changes yet to come, some of which we can discern in advance, some of which we cannot foresee. Among those that we can expect are the changes that are arising, and may well accelerate, from the changing role and operations of the building societies. The recent Green Paper includes suggestions for relaxing certain constraints on their operations that would allow the societies to carry out a wider range of personal financial services. The extent and nature of competition among building societies, and between them and banks, is already changing, and this will give that yet further impetus. In these circumstances all the aggregates, not only the various definitions of narrow and broad money, but also the wider liquidity measures, are liable to be subject to unforeseen distortion.

Because of the variability in short-run monetary relationships, monetary targets have to be operated pragmatically. The course of the monetary target aggregates of itself thus provides only a first approximation to the overall assessment of monetary conditions, and to the appropriate policy reaction. In saying this I hope that I will not be misunderstood. It is not in any sense to diminish the importance of such targets—they provide a continuing and essential constraint against purely discretionary policy: they give policy its backbone. The existence of targets places the onus on the authorities to explain why they are ignoring the signals given by diverging monetary growth, or why they are making course corrections by changing target indicators or target ranges. They act as a trip-wire, preventing the authorities, consciously or unconsciously, from ignoring danger signals, perhaps in the pursuit of more immediately popular and expansionary policies.

So the target aggregates do play a vital role. But it has always been recognised that, on their own, they do not necessarily tell the whole story. What we do is to use all the evidence available to us to assess whether the first indications from the monetary aggregates need modification. Each particular factor can only be one small building block in constructing that total assessment, and their individual importance will change with the overall circumstances. It would be unrealistic, however, to suppose that in the real world we could in any sense attach fixed, or preset weights to this, or that other, factor.

That said, we certainly look at all the monetary indicators—other aggregates, in addition to those targeted, and the influences affecting them, including the demand for credit from the public and private sectors; and nominal and real interest rates. We also look at direct evidence on the development of nominal incomes—and within that the prospects for inflation and output separately. And, of course, we look at the exchange rate.

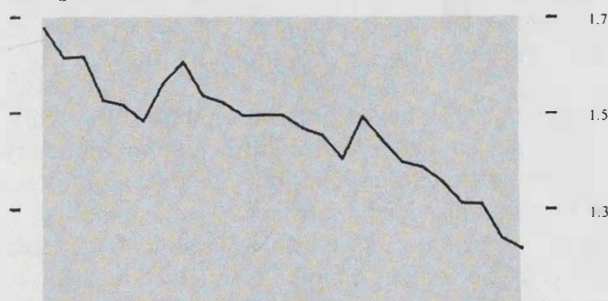
A great deal has been said and written about the role of the exchange rate in all this. There are even those who still insist that we have some kind of exchange rate target. How they can still think this after the exchange rate movements in both directions which have occurred in recent years and months—not only against the dollar but also against the generality of currencies—defeats me.

Let me repeat without qualification that we do not have an exchange rate target. But this is a quite different matter from saying that we are not concerned about the movement in the exchange rate. We are—because there are times when the movement in the exchange rate is telling us something about domestic monetary conditions, telling us for example that the indications from the target aggregates do indeed need qualification.

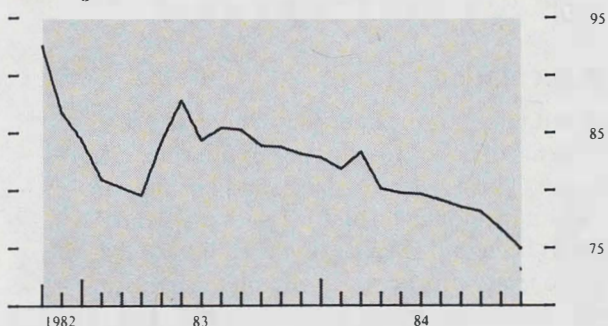
This will not always be the case: sterling may strengthen or weaken as a result of a change in the oil price, or as a result of a general movement of the dollar against other

Sterling exchange rates^(a)

Rate against the US dollar



Trade weighted index



(a) Last working day of month.

currencies such as we have recently seen, which has little or nothing to do with what is happening in this country. In assessing the significance of a movement in the exchange rate we have to address the question of why it is moving as well as the fact that it is doing so. And we assess its significance in relation to all the other available evidence.

Because of this, it is a great oversimplification to suppose that interest rates must rise if the exchange rate falls and vice versa; the need for such a change in interest rates could be signalled on occasions when a movement in the exchange rate, deriving from a domestic cause, reinforced the signal being given by other indicators, including in particular the targeted monetary aggregates; but it would not follow in other circumstances when monetary conditions as a whole appeared to be on track. A careful, rather than a casual, examination of events in recent years shows that actual experience in this respect has indeed been varied.

The real world is a place of everchanging complexity and untidiness, a difficult reality that contrasts with the predictability and order of economic models. In that setting we need, I believe, to adopt a somewhat pragmatic approach to intermediate monetary objectives, recognising that such objectives are, as their name indicates, no more than a means to an end.

But we have to be prepared to justify what we do to sceptical financial markets, which tend to assume that any discretionary change on the part of the authorities is evidence of backsliding. I understand this reaction and, indeed, regard it as basically healthy. But I do not believe that it can be met by the adoption of mechanistic rules

which are themselves likely to turn out to have been ill-designed and inappropriate. There is no panacea for guiding policy in an uncertain world.

We have to earn credibility through our actions by patiently and persistently pursuing the progressive elimination of inflation. That is the end we must keep constantly in view. We have now gone some way to achieving that, and the Government's MTFs provides the framework for further progress.

Other countries have faced similar problems in interpreting their monetary targets. The growing availability in the United States of interest-bearing chequable deposits, NOW and super-NOW accounts, and money market deposit accounts, have forced the Federal Reserve into a more judgemental approach with a shifting emphasis on the various money and credit aggregates. On occasions in recent years the Swiss and the Germans have felt that external pressures acting on their exchange rate have had such an important effect on the future course of nominal incomes, independently of the course of domestic monetary growth, that the latter needed for a time to be readjusted. In the more extreme case of Canada, the unpredictability of the relationships between money and nominal incomes became so overwhelming in 1982 that they abandoned monetary targetry altogether.

Alternative targets

It is not impossible that at some stage these problems could come to be seen as overwhelming in this country also. Suggestions for change have been made, and there are alternatives which need to be considered seriously.

One such suggestion is based on the fact that the ulterior objective is framed in terms of nominal income, and that the main difficulty with monetary targets has lain in the unpredictability of their relationship to nominal income. Why not then, it is suggested, target nominal income directly? I do not, however, think that this would work as an operational target. There would be disadvantages, for example, as a result of the distance between the operational instruments of policy and their impact on nominal income, and the unsuitable nature, for this particular purpose, of the national income statistics, since they are available only after a considerable delay and are subject to sizable revision.

Besides this first source of delay, in obtaining information, there is a second delay, even longer and therefore more troublesome, before the instruments of policy are able to affect and correct the course of the target. Monetary targets, unlike nominal income targets, do not suffer from the first type of delay, and only to a somewhat lesser extent from the second. For example, the course of nominal income up to the end of the present financial year is almost entirely determined by policy actions already taken.

Policy actions taken now will for the most part not affect nominal income until later in 1985. It would be misguided to relate policy to what has happened, when what is needed is to adjust policy so as to prevent future developments going off track. Unfortunately forecasts have a somewhat dubious status; indeed cynics see them as potentially offering undue scope for wishful thinking. So, reliance on forecasts could be thought to undermine the role of the intermediate target as a constraint on the authorities and a protection against systematically inflationary policies.

A second alternative, in place of a domestic monetary target, and a more traditional one, has been the adoption of an exchange rate objective, through a pegged relationship with a foreign currency, or in earlier times with gold. For the United Kingdom with its close political and economic ties with our European neighbours, there could be a number of attractions in taking a full part in the exchange rate mechanism of the EMS.

I do not intend here to enter into the substance of the debate on this issue. But in the context of the general discussion on the use of intermediate targets I would like to make two technical points.

The first is that it would be necessary to consider the implications of an exchange rate objective for the conduct of domestic monetary policy, that is whether it would be possible to seek to maintain both the exchange rate and domestic monetary aggregates as intermediate targets, and the degree to which they might come into conflict. This might depend to some extent upon the precise nature of the arrangements as they applied to the United Kingdom.

My second technical point, which has perhaps been less widely debated, is the nature of the discipline which an exchange rate objective would impose. If the exchange rate mechanism were seen as an alternative discipline—with step changes in the exchange rate as a late, if not a last, resort—this could in practice mean somewhat less policy flexibility than currently under monetary targets. The obligation to intervene if the exchange rate target was threatened would provide some breathing space during which the origin of the threat and the need for an alternative policy response could be considered. But intervention, which is itself a form of policy response, may not be a very strong one given the continuing increase in the potential size of international capital flows, and the comparative diminution of the relative weight of official financing available to offset such flows. With monetary targets as the main discipline a policy response might be avoided, or at least moderated, if that could be justified in the light of analysis of the causes of the divergence of monetary growth from its target path, and of the likely implications for nominal income. Such distinction between possible alternative regimes could be seen as either a strength or a weakness.

But the scope of the debate on the EMS of course goes far wider than these particular matters, and there would be many other aspects to be considered before a decision on entry could be taken by the government.

In the meantime we have learnt during the last few years to cope somewhat better with the difficulties of monetary targets. With careful interpretation, the target aggregates have, I believe, provided a satisfactory guide to policy, and we have been more successful in keeping to the target ranges. It may be that as inflation is squeezed further out of the system, erratic behavioural influences causing variations in velocity will tend to reduce.

Implementation

I have left until last the question of how we use the instruments of policy to achieve our intermediate objectives. This is a large subject, and I cannot, in the time left to me, touch on all the issues involved. So much has been said recently on the subject of the fiscal/monetary mix of policy and on the uses, or otherwise, of intervention in the exchange market that I feel that I can reasonably omit these topics today. I shall, instead, concentrate on two aspects of monetary policy that are central to the Bank's policy activities, namely our operations in the money market and in the market for gilt-edged stocks, which, with important inter-connections between these two markets, influence short-term and long-term interest rates.

In the markets in which we operate there are enormously powerful influences other than our own. It is not just a matter of pressing a button or pulling a lever in order to set short-term or long-term interest rates at a level of our own choice: though of course we too can exert a substantial influence. Often market influences will be pulling in the direction that we wish to go; on occasion our views will conflict. On such occasions we can often persuade the market to our view through the conduct of our market operations themselves; and in rare circumstances we may attempt to do so through more direct and public explanation. But ultimately it is not possible for us to impose our view, even in the domestic markets, in the face of strong market conviction. And this is how it should be. Market pressures can be an important externally imposed corrective against any bias to delay in our taking necessary policy action, just as monetary targets provide a self-imposed discipline.

The markets are not of course infallible, any more than the authorities are; on some occasions they may generate apparently incorrect signals, but these often tend to reverse themselves relatively quickly, and the occasional wrong signal may be a price that is worth paying for a measure of protection against misguided official decisions.

Money-market operations

So, in the money markets there is a balance of official and market influences on interest rates. The official influence, as explained earlier, is guided by the course of the

monetary target aggregates, interpreted in the light of other current developments; it may be exerted more or less forcibly depending on the degree of confidence with which the official view of monetary conditions is held. The market influence too can vary depending on the strength and dispersion of market expectations, affected by market perceptions of the same and other factors. This complex process of interest rate formation is probably essentially similar whatever the precise techniques of central bank intervention in the money markets—and while it is right that those techniques should be continuously under review, I would caution against expecting too much from changes in the method of operation.

The complex interaction between the influence of market forces and the influence of the authorities in determining interest rates is difficult, even for an insider, to unravel and see clearly. It is, alas, not much easier to track the subsequent effects of interest rates either on financial or on real variables. I like to think that I can speak even for my economic advisers when I suggest that we need to be modest in our claims to understanding in this field. There are many routes through which changes in interest rates affect both financial and expenditure decisions. It is, however, extraordinarily difficult to quantify these effects at all clearly. For example, the nature of the relationship is liable to depend on the policy regime established by the authorities, or perceived by the markets; and the extent of the response to interest rate changes will depend on whether the change had been previously anticipated, and also on the expectations for future changes that are then generated. In this field, as in several others, econometrics has, as yet, not proved to be of much help, and we are perhaps forced back onto a combination of experience, theory and prior belief. In this respect my own view is that higher interest rates will exert a considerable restraining effect on the demand for credit and money in anything but the very short term.

The time horizon is, perhaps, particularly important in this case because a major problem for the conduct of monetary policy has been the apparent weak short-term response of private sector demand for credit from banks, and also from building societies, to movements in interest rates. In the absence of direct controls on lending, and with banks, and now building societies, able to fund their loans through liability management, that is by borrowing in wholesale markets, the responsiveness, or lack of it, of private sector demand for credit effectively determines the response to interest rates of the whole monetary system.

The apparently slow and uncertain response of the private sector's demand for bank credit to interest-rate changes represents a major problem for monetary control whatever methods of such control we might use. It would, for example, still be a factor if we were to operate a system of monetary base control as some have suggested. While such arrangements are sometimes seen as operating on the supply of credit, the insensitivity to interest rates of the demand for credit would imply that interest rates would

still need to fluctuate very widely to bring supply and demand into balance over any short-term horizon, with consequential dislocation and disturbances, not only to the financial system but also to the economy more widely.

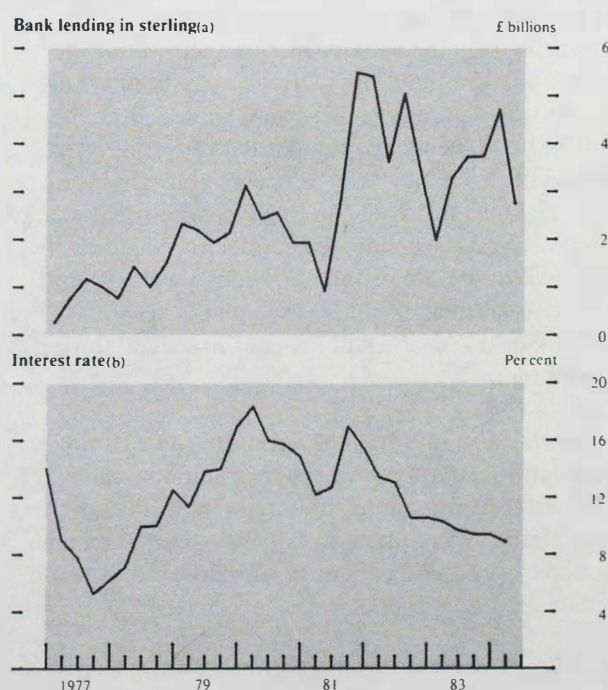
Be that as it may, it is possible that the root of the problem, the slow and uncertain response of the demand for credit to interest rates, could be changing, and in a helpful way. The removal of various forms of direct controls, such as ceilings, guidelines and even corsets, over lending to the private (and especially to the personal) sector is leading to more borrowing in relation to income. I think that there are reasons to hope that, once this process has worked itself out, bank lending may become more sensitive to interest rate changes.

Debt management

Meanwhile, there have been occasions when we have had to seek to compensate for private sector bank credit growing faster than can be accommodated within our monetary targets by ensuring negative monetary financing by the public sector, that is by selling more public sector debt outside the banking system than is required to cover the public sector's borrowing requirement, and repurchasing public sector debt from the banks or acquiring claims on them. This, so-called overfunding, has become a subject of some controversy—though I am not sure why it should be, if it is properly understood.

From the monetary standpoint what affects the money supply is the extent to which total credit demand—private and public sector—is met by recourse to the banking system. The converse of this is that the monetary consequences of any given total demand for credit, in all

Loan demand



(a) Net new lending, including commercial bills held by the Issue Department of the Bank of England, at a quarterly rate.

(b) 3-month interbank sterling rate at start of quarter.

its various forms, depend on the degree of capital market financing—again public and private sector combined. From this analytical point of view the distinction between public and private sector does not matter.

To put the same point another way, while we are concerned to monitor private credit demand because of its potential monetary implications, we are not concerned to limit it for its own sake. One can see this clearly in that—within broad limits—no one would be concerned at a faster rate of private sector credit demand if it were to be financed out of genuine savings through the capital market. I am not suggesting that credit expansion is unimportant in its own right: but it is essentially the monetary consequences of credit demands that we are seeking to control. In this context overfunding is a clearly rational approach.

This general approach, whereby the objectives for debt management are set in the context of our monetary targets, has a number of additional advantages. First, it aids the co-ordination of monetary and fiscal policies. The capacity of the gilt market to absorb official debt sales without unacceptable pressure being exerted on yields in the capital markets generally is not unlimited, and this acts as something of a constraint on the size of the fiscal deficit consistent with the adopted monetary target. Second, it does provide a clear, precise and defensible objective for funding itself.

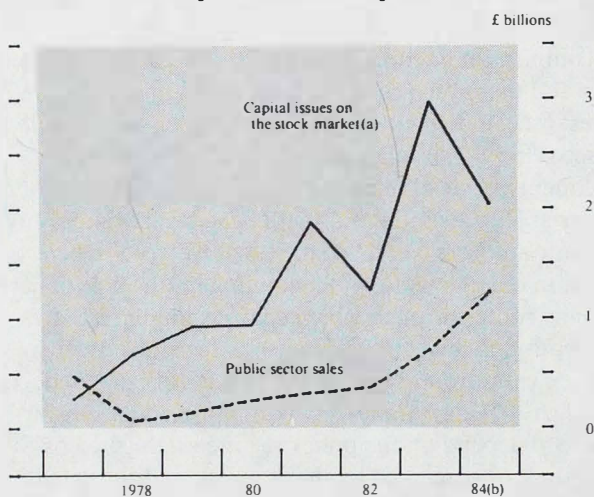
Many of the elements in this situation, notably the demand for private sector bank credit running systematically at a stronger and faster pace than the rate of growth of the money stock that the authorities were content to accept, and overfunding, have been continuing, on and off, throughout the post-war period. In earlier years the resulting cash shortage was relieved by our buying back from the banking system their initially excessive post-war holdings of Treasury bills and short gilts, a process that was generally applauded. But now that these have been largely exhausted, it is simply an extension of exactly the same process to buy short-term commercial bills from the banking system. Money-market management can be conducted as effectively and easily on the basis of private sector, as of public sector, liquid instruments, as happened here as a matter of course before the First World War and still happens in several foreign countries today.

Overfunding also involves the authorities in a complex chain of intermediation between the capital markets, the banks, and their private sector borrowers. Although these are essentially awkwardnesses rather than fundamental objections, we would be more comfortable if they could be avoided.

The difficulty that overfunding implies for monetary policy could be eased if the private sector were to meet more of its needs for external finance directly through the

capital markets—rather than relying to such a large extent on intermediation through the banks. We have taken a number of steps, both fiscal changes and in our debt management policy, to encourage the revival of the private sector capital market. There are some signs of a recovery in these markets: net new issues by UK companies last year were well above the previous highest figure, and a healthy flow of new issues has been maintained so far this year; while, in addition, the market has been able to absorb a growing volume of equity sales by the government, resulting from its privatisation programme.

Demands on the private sector capital market



(a) Issues by UK-listed companies and by UK companies on the unlisted securities market (excluding British Leyland issues to the NEB).

(b) First three quarters at an annual rate. Figures therefore exclude the British Telecom offer for sale in November.

There are those who argue that private sector borrowers, who have been borrowing in such large amounts from banks, would be induced to return to longer-term borrowing from the capital markets if only the authorities would drastically curtail their own demands on the gilts market. This is to suggest that overfunding, rather than being an answer to the problem of excessive private sector bank borrowing, instead perpetuates it. It does so, the argument runs, by tilting the yield curve upwards, thus encouraging private sector borrowers to fund themselves by short-term bank borrowing.

I do not believe that this argument is well founded. The implication is that we should gamble by making a major shift in the pattern of government borrowing before we could discover whether the private sector would, in the event, respond adequately. This is a risk we cannot afford to take. Unless the mere announcement of the policy shift were to effect the cure, there would be a phase during which the government's longer-term borrowing was drastically reduced in favour of more sales of short-term debt. One effect would be to raise short-term interest rates relative to long-term rates. But unless there were an immediate shift in private sector credit demand from the banks to the capital market, a second effect is likely to be an acceleration in the growth of the money stock. This in turn, through its impact on inflationary expectations, would tend to raise the general level of interest rates,

which is hardly a conjuncture designed to encourage private sector borrowers to increase their long-term commitments.

In that case, you might ask, could we usefully seek to move in the opposite direction; to overfund more aggressively? There could be two reasons for trying to do this. The first would be to seek to reduce monetary growth faster and further than in the MTFs. The pace of reduction in monetary growth, and in nominal incomes, established by the MTFs was, however, carefully chosen, and there are very good reasons for pursuing our anti-inflationary policies at this steady rate. In any case there would be strict market limits to the extent of additional sales that would be possible, so that more aggressive debt sales would provide neither a painless nor, beyond a certain point, even a feasible route to achieving a significantly slower rate of monetary growth.

The second reason for more aggressive debt sales could be to allow lower bank base rates, and additional bank lending, subject to a given monetary target. Here again, the funding objective could itself be prejudiced if markets thought that we were prepared to make excessive demands on the capital markets. In that case markets

would tend to generate a level and structure of interest rates that would cut back the demand for credit. In this context then, as in others, our freedom of manoeuvre, and possible options, are limited by the stage that we have reached in the disinflationary process as well as by market pressures.

Conclusion

Let me now conclude. In the course of preparing this lecture, I have found that three main themes have predominated:

- the changeableness of the financial structure;
- the limitations of our knowledge and understanding; and
- the extent to which the authorities' freedom of action is boxed in by the pressures of outside events and the market perceptions.

This will, I hope, have led you to an appreciation of the extent to which monetary management—as indeed central banking more generally—is an art rather than a science. But like all art, it needs structure and discipline.